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# Australian Bureau of Statistics Annual Report 1979-80







# **Australian Bureau of Statistics**

**Annual Report 1979-80**

Australian Government Publishing Service  
Canberra 1980

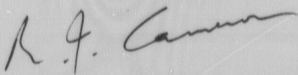


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The Honourable John Howard, M.P.  
Treasurer of the Commonwealth of Australia

In accordance with the provisions of section 24(1) of the *Australian Bureau of Statistics Act 1975*, I hereby submit to you, for presentation to Parliament, this Report for the year ended 30 June 1980.

A handwritten signature in dark ink, appearing to read 'R. J. Cameron', with a long, sweeping horizontal stroke extending to the right.

R. J. Cameron  
*Australian Statistician*

25 August 1980



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*Note :* In this Report, after the first reference, the Australian Bureau of Statistics is referred to as the ABS or the Bureau, and the Australian Statistics Advisory Council as ASAC or the Council.



## 1 INTRODUCTION

The Australian Bureau of Statistics is the central statistical authority for the Commonwealth Government and, under agreements between the Commonwealth and the States, provides statistical services for the State Governments. The principal legislation determining its functions and responsibilities is the following:

- . *Australian Bureau of Statistics Act 1975*
- . *Statistics (Arrangements with States) Act 1956*
- . *Census and Statistics Act 1905.*

Under the *Australian Bureau of Statistics Act 1975* the Australian Statistician is required to submit to the Treasurer, for presentation to Parliament, an annual report on the operations of the Bureau. This is the fifth annual report by the Australian Statistician.

A wide range of statistics is sought from the ABS to assist in the formulation and monitoring of policies of many kinds; for example, general financial and economic policies, policies relating to particular industries or particular localities, and policies relating to the provision of social security, education, medical and welfare services. In addition, businesses, industry associations, trade unions, other non-governmental bodies, universities and other research institutions, and a large number of individuals ask for figures to assist in planning their activities, in carrying out their various functions and in following up particular interests.

In its activities during 1979-80 the Bureau attempted to strike a balance between meeting increased demands for official statistics and minimising the reporting burden on respondents to ABS collections; and also between the costs involved in collecting and processing data and the Government's policy of expenditure restraint. Within this policy of constraints, the Bureau is experiencing increasing difficulty in maintaining essential statistical output without endangering statistical standards with respect to accuracy and reliability.

During 1979-80 the Bureau maintained its policy of reviewing existing activities to ensure their continued effectiveness in meeting users' requirements, and to see that they were performed with maximum efficiency. Reviews currently in progress include the foreign investment project, the ABS's information dissemination activities, and the coverage, sources and updating practices for the ABS's register of businesses. In addition an investigation into the accuracy of the monthly employment series has recently commenced.

Seven proposals for new collections of statistical data were tabled in Parliament during 1979-80; details are shown in Appendix 1. In addition to these projects, during 1979-80 the ABS conducted the first survey of the construction industry (tabled in May 1979), a triennial survey of motor vehicle usage, a survey of educational experience of the population (tabled in May 1979), and a survey of income distribution in respect of 1978-79. It also commenced monthly surveys of overtime (tabled in May 1979), and re-introduced quarterly surveys of job vacancies. These new collections were made possible either by redeploying staff engaged on lower priority activities or by collecting information in conjunction with the regular Population Survey.

Preparations continued during the year for the 1981 Census of Population and Housing, and the Census of Retail Establishments to be conducted in respect of the reference year 1979-80.

During the year the ABS again benefited from the deliberations of the Australian Statistics Advisory Council, the activities of which are outlined in the Council's report.

## **2 THE ACCURACY AND RELIABILITY OF ESTIMATES OF NATIONAL INCOME AND EXPENDITURE**

### **Introduction**

The Australian national accounts are among the most important statistics on the Australian economy published by the ABS. They provide a timely and comprehensive overview of past and current developments in domestic economic activity. As such they are widely used by government agencies involved in economic advising and provide data relevant to public discussion of national economic policy.

The accounts provide details of such aspects of the economy as national income and expenditure, balance of payments, input-output relationships and gross product by industry.

The estimates of national income and expenditure, particularly the quarterly estimates, are the most timely, the most widely used and probably the most important component of the national accounts. Indeed in popular usage these estimates are often referred to as the national accounts and the terms are used interchangeably in the following paragraphs.

Estimates of national income and expenditure have been compiled on an annual basis by the ABS since 1944-45, and on a quarterly basis since 1960. Unfortunately, despite their importance, the estimates suffer from many limitations and concern has been expressed recently about their accuracy and reliability, particularly with respect to the frequency and size of revisions to initial and subsequent quarterly estimates, and the nature and extent of the statistical discrepancy.

### **The nature of national accounting**

Estimates of national income and expenditure provide a summary record of economic activity. The measure of total production is called Gross Domestic Product (GDP) and its estimation is an attempt to quantify the total market value of goods and services produced in Australia within a given period. Two separate estimates of GDP are available from the accounts, one derived from an aggregation of incomes earned by persons and businesses involved in production, and the other derived from an aggregation of final expenditures within the economy. The two methods of estimation are based on largely independent and often inconsistent sources of information, and the resulting estimates do not exactly coincide. The difference is known as the 'statistical discrepancy'.

In an effort to assist in the interpretation of movements in the figures, quarterly estimates of income and expenditure are also published in seasonally adjusted terms. In addition, to show the extent to which movements reflect changes in prices, both quarterly and annual expenditures are estimated in terms of constant, as well as current, prices.

### **Problems in compiling the estimates**

Compilation of the national accounts, especially the quarterly estimates, represents perhaps the most difficult estimating task attempted by the ABS. The material available for the purpose is incomplete, subject to error, difficult to obtain, and in many cases available only after considerable delay. Because of these difficulties with the source data,



the estimates suffer from internal inconsistencies and are subject to revisions, which may be quite substantial, as more up-to-date and reliable data become available.

As an example of the kind of problems encountered, suppose a large piece of equipment is imported near the end of the quarter and is still in stock at the end of that quarter. It is (unfortunately) quite possible for the import and the addition to stocks to be recorded in different quarters in the two collections. If this happens, not only will the rates of change in the two series be inconsistent but a statistical discrepancy will appear in the national accounts for both quarters.

Another example concerns information provided by businesses on the value of stocks on hand. In order to make a reliable estimate of how much of the change in value during a quarter is because of price changes during that quarter, information is needed about the methods of valuation used by businesses. There are in fact several different methods in use and it is difficult for the ABS to ascertain the mix of methods used and how these are changing over time.

More generally, information simply is not available, soon after the end of a quarter, about income, expenditure, production and prices in every sector of the economy during that quarter. For example, a good many businesses, particularly the smaller ones, do not know at the end of a quarter what their profits have been in that quarter. Estimates can be pieced together from indirect sources, but if direct information is not available it cannot be invented by the Bureau.

For some items, information never becomes available as a quarterly series; the only source is on an annual basis. Some quarterly estimates therefore have to be compiled largely as projections from annual benchmarks, which in some cases may be several years out of date.

Some of the data used in the estimates are obtained as a by-product of government administrative processes, for example the collection of income tax and payroll tax. Such data present particular problems because the processes from which the data are derived have not been designed with the specific purpose of producing reliable statistics. The data available are often therefore inconsistent, incomplete, and in some cases unreliable.

### **Revisions to earlier estimates**

In compiling the estimates of national income and expenditure, the ABS has taken the view that better and more reliable information should be incorporated as it becomes available, rather than held back for periodic incorporation. The aim is to provide the best estimates possible from the information available at the time of publication. Although it is recognised that frequent and sometimes substantial revisions can be confusing to users, such amendments generally move preliminary estimates progressively closer to the final published value of the aggregates.

In respect of the current price estimates, revisions to the quarterly figures generally result from including more complete or more up-to-date information. Constant price estimates are generally subject to revisions for the same reasons and are also affected, though to a much lesser extent, by revisions to the price and other data used in the revaluation process. In addition, it is necessary periodically to change the base period of the constant price estimates so that the price relativities reflected are not too different from present-day relativities. This results in alternative estimates of growth for recent time periods. All that can be said about the difference between the two estimates is that different price relativities give a different picture of change.

Changes to seasonally adjusted estimates occur as a result of revisions to the original estimates and also because of revision of the seasonal adjustment factors, as the availability of figures for the subsequent periods influences the interpretation of what constituted a seasonal variation at that time.

### **Statistical discrepancy**

Another concern with the estimates of national income and expenditure is the nature and size of the statistical discrepancy.

In Australia, the income-based estimate of GDP has traditionally been used as the basic measure of product growth, with the statistical discrepancy being assigned to the expenditure side of the accounts. A large statistical discrepancy indicates that the measurement of either the expenditure or income estimates, or both, is inadequate. Similarly a sustained trend in the discrepancy suggests that the estimates of the growth of individual items are out of line with actual developments, although this could be associated with improved accuracy in the measurement of the level of some individual aggregates.

### **Conclusion**

The ABS recognises that the quality of the income and expenditure figures is deficient and, subject to resource constraints, is taking steps to improve the estimates. This may involve an increase in the amount and quality of source data, and also modifications to the ways in which components of the accounts are estimated.

So far as the first of these approaches is concerned, although the amount of information available from ABS collections is gradually being expanded, progress is limited by cost constraints and because of the need to minimise demands upon the business community for additional data. For some purposes an alternative approach would be greater access to taxation data. Investigation of the issues involved in such an approach is proceeding.

To assist in the work being undertaken on the national accounts, an advisory group comprising economists from government, industry and universities has recently been formed. The group met in June 1980 and further meetings are planned at approximately six monthly intervals.

Despite their limitations, the ABS believes that the the estimates of national income and expenditure fulfil a useful purpose. However, it is essential that all who use the estimates should do so in the full awareness of their limitations, bearing in mind that they are unavoidably based on a variety of sources which are neither complete nor consistent, and some of which only become available long after the period to which they relate. In particular, the early estimates should be regarded as broad indicators of recent trends rather than a precise estimate of changes in economic activity.

These problems are not unique to Australia: they are encountered by every country which engages in the compilation of national accounting estimates and are sufficient to deter all but a few countries from attempting to produce figures on a quarterly basis.

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## **3 THE OUTPUT OF ECONOMIC STATISTICS**

Economic statistics produced by the ABS are derived largely from economic censuses and

surveys. The censuses are designed to provide detailed information on industry structure and to facilitate valid comparisons across geographical areas and between different industries. The surveys of selected businesses are designed to provide timely and regular indicators of economic activity.

Economic censuses and surveys are important sources of data for national accounts estimates and input-output tables. This is especially true of censuses and surveys which deal with the production and consumption of goods and services and associated capital formation. The national accounts require data on establishments and commodities for analysis of production, consumption and capital formation, and data on enterprises for the preparation of income and outlay accounts and capital accounts.

#### **(a) National accounts**

The national income and expenditure estimates, which form part of the Australian system of national accounts, have been discussed in Section 2 of this report. During the past year, as part of the continuing process of upgrading the national accounts, investigations have been undertaken into the methods used by businesses to value stocks. Several aspects have been identified that require further work.

To further assist users of the national accounts, a new publication containing information on concepts, sources, and methods of compilation is planned for release towards the end of 1980. This publication will bring together, in a concise format, relevant information previously included in the various national accounting publications. It is also planned to release an occasional paper which will contain estimates of current-cost depreciation and capital stock, together with an outline of the sources of data and the methodology used to compile them.

In the course of the year constant price estimates of expenditure on research and experimental development carried out by businesses were published for the first time.

Input-output tables provide a detailed measure of the flow of goods and services between industries and a detailed dissection by industry and by commodity of the domestic production account. Because of the specific information which the tables provide about the structure of Australian industry, they have been of special use in detailed studies of the Australian economy, for example the IMPACT project.

Final input-output tables for 1974-75, which will also be released on computer tape, will be published in September 1980. For purposes of compiling these tables the ABS developed a new methodology which is being further developed for use in compiling tables for later years. In its modified form it will fully utilise available data for each year and enable tables to be prepared annually, rather than quinquennially as in the past. It is planned that the first of the publications in this new series will be available during 1980-81 in respect of 1977-78. The more frequent issue of publications and the improved timeliness in the release of input-output data should significantly enhance their usefulness.

#### **(b) International accounts**

The international accounts program produces statistics on the balance of payments and foreign investment.

The accuracy of several balance of payments items was improved during the year by the introduction of revised estimation methods and more extensive use of available data

sources. The annual publication *Balance of Payments* underwent major restructuring to assist users to comprehend the statistics more easily. Preparation of a publication describing the concepts, sources and methods used in compiling estimates of the Australian balance of payments is nearing completion.

Work continued during the year on a major review of the concepts and output of foreign investment statistics. This included a survey of users' requirements to assess the demand for and usefulness of current output of the project, and a review of the content and timing of publications. Changes are being implemented as resources permit.

#### (c) Foreign trade

The foreign trade program covers the compilation and dissemination of statistics of exports, imports, imports cleared for home consumption, shipping, excise, and import orders for selected commodities.

In addition to monthly and annual publications, many special tabulations are undertaken to meet users' ad hoc requests and many users subscribe to a service which provides them with regular monthly or quarterly information on individual commodities.

Developments during the year included:

- completion, in conjunction with the Bureau of Customs, of a review of the statistical items within the Australian Customs Tariff Classification, resulting in an improved presentation of data and a reduction in the number of items;
- completion of a redesign of the shipping collection, which now provides more comprehensive information on overseas shipping and cargo movements through Australian ports;
- continued study of the practicalities and implications of recording exports and imports according to the arrival/departure of the vessel, rather than the date on which documents are lodged (the current method); and
- continuation of work on the redesign of processing systems for implementation on the new computing equipment to cater for the needs of users through the next decade. It is expected that the new processing system will be in operation early in 1982.

#### (d) Prices

In addition to compilation of the consumer price index (CPI), the prices program includes production of the export price index and a range of wholesale price indexes relating to inputs and outputs of manufacturing industry, and materials used in the building industry.

Reweightings and review of data items of the CPI is due for completion in mid 1982. In general, the revised weights will reflect consumers' expenditures in the year 1979-80, estimated from a variety of sources such as retail sales and production statistics. The review will include methods of weighting and pricing for particular goods and services, and the range of items to be covered.

Development of a CPI for Darwin has begun and publication is expected to commence about mid 1982.

A review of the export price index was completed during 1979. The revised index has a more comprehensive coverage, in particular of manufactured goods.

Work in progress includes review of the price index of materials used in building other than house building, and development of an import price index to replace the present inadequate index compiled by the Reserve Bank.

#### **(e) Public finance**

The major objective of the public finance program is to provide statistical information on receipts and expenditure of Commonwealth, State, Territory and local governments and their subsidiary bodies. The aims are to facilitate assessment of the impact of financial transactions between governments, government enterprises, and the rest of the economy; to quantify the degree of participation of the various levels of government in the undertaking and financing of expenditure programs and the purposes served by these programs; and to provide information for the determination of inter-governmental grants.

The program includes the compilation of financial data for inclusion in a data base relating to local government activities (the Australian Municipal Information System). Statistical information concerning income, assets, expenditure, tax payable, etc., derived from Commonwealth taxation assessments, is processed for use in national accounts estimates and the statistical supplement to the annual report of the Commissioner of Taxation.

Developments during the year included:

- completion of proposals for producing standardised and more timely financial statistics for local government authorities, to meet the needs of Commonwealth and State Grants Commissions and other government bodies concerned with the provision of financial assistance to these authorities. It is expected that the standardised statistics will become available for all States and the Northern Territory during 1980-81 in respect of 1979-80 (calendar year 1979 for New South Wales); and
- commencement of a review of requirements for public authority finance statistics and the most appropriate ways of collecting, processing and disseminating data in this field. Consultations with major users of these statistics are being held in order to obtain up-to-date information on their current and future requirements.

#### **(f) Private finance**

The private finance program covers statistics of the activities of financial institutions, with particular emphasis on banks, insurance companies, finance companies, building societies and credit unions. Several of the collections in this field are undertaken in co-operation with other authorities such as the Reserve Bank of Australia, Insurance Commissioners, and State Registrars of Building Societies or Credit Unions, and are conducted under legislation other than the Census and Statistics Act.

The major developmental effort over the past twelve months has been the continuing investigation, jointly with the Treasury and the Reserve Bank, into ways in which the collection of statistics from financial institutions might be rationalised. Since this work has implications for the majority of the program's existing collections, it has been accorded priority over other developmental activity in the area. The object of the rationalisation study is to achieve an appropriate balance between the requirements of users for comprehensive and compatible statistics, and the need to minimise the reporting burden on financial institutions. Effort is at present being concentrated on the development of proposals for a rationalised system of collections from non-bank financial institutions.

#### **(g) Agriculture**

The agriculture program includes an annual agricultural commodity census, specific

commodity surveys, and a triennial agricultural industry finance survey.

The annual agriculture commodity census covers some 180 000 establishments and provides a wide range of agricultural data at various levels of aggregation including small areas. The content of the census is varied from year to year in order to minimise respondent burden and optimise ABS resources, while maintaining an acceptable level of service to users of agricultural statistics.

The triennial agricultural industry finance survey produces information on costs, revenue and indebtedness for agricultural industries. It is planned that the next survey will be conducted in respect of 1980-81.

Major developments included:

- . introduction of an information dissemination service to provide detailed small area agricultural commodity statistics on both computer tape and microfiche; and
- . work on redevelopment of processing systems for implementation on the new computer equipment.

#### **(h) Construction**

The main projects in the construction program are:

- . a monthly building approvals collection;
- . a quarterly building operations collection;
- . a quarterly construction (other than building) collection; and
- . a periodic survey of the construction industry.

The first periodic survey of the construction industry was conducted during 1979-80 in respect of the year 1978-79. Preliminary results have been published and further information will be released in the second half of 1980. The survey of the construction industry followed broadly similar lines to the other economic censuses conducted by the ABS, the major difference being in collection methodology. While the statistics covered all construction enterprises, data were collected from only a sample of the smaller ones. Information was obtained from these smaller enterprises by the use of specially trained field interviewers. This methodology proved to be effective, particularly in reducing the reporting burden placed on smaller businesses.

The other major development during 1979-80 involved a substantial redesign of the collection and processing procedures used to produce the quarterly building operations statistics. This new system is expected to be introduced during 1980-81. Its main features include:

- . the collection, on a monthly basis, of data on building commencements from individual local government authorities;
- . the introduction of sampling techniques in the measurement of quarterly house building activity. This will mean a significantly reduced form filling burden for house builders; and
- . prelisting, on the data collection forms sent to builders, of information collected from other sources, thus further reducing the reporting burden on those builders.

### **(i) Transport**

The transport program comprises three principal components:

- . a monthly count of new motor vehicle registrations;
- . a triennial survey of motor vehicle usage; and
- . monthly and quarterly compilations of road traffic accident data.

The most recent survey of motor vehicle usage was conducted in respect of the year ended 30 September 1979. The collection phase of this survey has been completed and results will become available progressively from September 1980. It is planned to conduct the next survey in respect of the year ended September 1982.

Other developments during the year included:

- . further work on the preparation of a conceptual framework within which a comprehensive range of transport data can be compiled and analysed. This involves identifying the full range of transport statistics available, their compatibility and, by comparison with the theoretical framework and expressed user requirements, the major deficiencies that currently exist;
- . preliminary investigations, particularly consideration of appropriate statistical units, data item concepts, and classifications, to determine a suitable methodology for conducting a proposed statistical collection on the transport industry; and
- . examination and appraisal of the existing interstate freight movements collection with a view to its revision during 1981.

### **(j) Manufacturing**

The manufacturing program includes:

- . an annual structural and commodity census of manufacturing industries;
- . annual censuses of electricity and gas production and distribution industries; and
- . monthly and quarterly surveys of manufacturing production.

The annual census of manufacturing establishments provides a wide range of data on the structure of the manufacturing sector including employment, wages and salaries, turnover, value added, and capital expenditure. The monthly and quarterly surveys provide regular and timely figures on the production of principal manufactured goods.

A new processing system, introduced for the 1977-78 manufacturing and mining censuses, is producing more timely results and providing more flexibility in meeting ad hoc requests for detailed tabulations.

An annual census of electricity and gas production has been developed and will replace, from 1979-80, the former quinquennial census.

A review of the manufacturing program which was completed during the year resulted in a reduction of staff numbers without significantly affecting statistical output.

### **(k) Mining**

The mining program includes:

- . an annual structural and commodity census of the industry, conducted with the

- co-operation and assistance of State Government Mines Departments;
- quarterly and annual exploration surveys; and
- the collection of annual data on the fishing and forestry industries.

The annual census of mining establishments provides a wide range of data on the structure of the industry comparable with data provided in respect of manufacturing industry. Introduction of the new processing system referred to in (j) above has resulted in improved timeliness and increased flexibility in disseminating the results of the census.

In recognition of the growing interest in energy statistics, the ABS has outposted an officer to the Department of National Development and Energy.

#### **(l) Internal trade**

The internal trade program includes:

- monthly and quarterly surveys of retail sales;
- periodic censuses of the retail, wholesale and selected service industries;
- quarterly tourist accommodation surveys; and
- collections relating to the interstate trade of Queensland, South Australia, Western Australia and Tasmania.

The retail surveys provide monthly estimates of the total value of retail sales in Australia, and quarterly estimates of the value of retail sales in each State for twelve main commodity groups. The retail censuses provide statistics on the structure of retail trade and selected service industries, similar to those provided for manufacturing and mining establishments, by size groups of establishments and enterprises. They also provide commodity data in more detail than can be obtained from surveys. A census is being held in respect of 1979-80 and will collect more detailed information from a wider range of respondents than the census held in respect of 1973-74.

Quarterly tourist accommodation surveys provide statistics of monthly occupancy rates and takings from accommodation, together with information on employment in, and capacity of, tourist accommodation establishments. This information is available by regions as well as at State level. To lessen costs to respondents and to the ABS, it is planned to include certain types of establishment in the surveys on a rotational basis.

Developments during the year included:

- examination of user requirements from the survey of retail sales, and development of a strategy for meeting priority requirements in the redesigned survey to be introduced following the 1979-80 retail census;
- finalisation of a review of the existing survey of retail sales. This has resulted in a decrease in resource usage without significantly affecting statistical output;
- detailed preparation and testing of clerical procedures and computer processes for the 1979-80 census of retail and selected service establishments;
- commencement of preliminary investigations to determine a suitable methodology for conducting proposed economic censuses of the wholesale trade and certain other service industries in respect of the year 1981-82; and
- publication, for the first time, of estimates of the value, composition and direction of South Australia's interstate trade.



### (m) Enterprise statistics

Enterprise statistics provide information on the operations of business enterprises and are derived mainly from the integrated economic censuses and sample surveys of key economic indicators, such as actual and expected new fixed capital expenditure, stocks, and actual and expected manufacturers' sales.

Enterprise statistics derived from the integrated economic censuses are mainly used in studies concerned with the structure and performance of business undertakings. Those derived from sample surveys are mainly used for macro-economic analysis of private sector investment, and for assessing trends in business activity and prospects. Statistics of actual new fixed capital expenditure, together with changes in the value of stocks, are used in preparing estimates of gross national expenditure.

This program also embraces the biennial statistical surveys measuring expenditure and manpower resources devoted to research and experimental development in Australia as part of Project SCORE (Survey and Comparisons of Research Expenditures), overall responsibility for which lies with the Department of Science and the Environment. These statistics cover relevant activity by private businesses, tertiary institutions, Commonwealth and State Governments, and private non-profit bodies.

Developments during the year included:

- . availability, for release on request, of estimates of long term expected new fixed capital expenditure;
- . preparation of quarterly estimates of new fixed capital expenditure by State;
- . publication, in respect of the year 1977-78, of the first of an annual series of integrated economic census enterprise statistics;
- . release of integrated economic census enterprise statistics on computer tape;
- . conduct of a survey of technological change in private non-farm enterprises, for the three years ending 30 June, 1979, on behalf of the Committee of Inquiry into Technological Change in Australia (Myers Committee);
- . publication of preliminary research and development (R&D) statistics of private businesses for 1978-79; and
- . initial collection by the ABS of R&D statistics from tertiary institutions, government, and private non-profit bodies in respect of 1978-79.

### (n) Classification

The objective of this program is to develop the classifications used in the statistical work of the ABS and other government agencies. The principal classifications and related standards covered by the program include industry, commodity, occupation, geographic and various economic sector classifications.

Work completed during the year included:

- . preparation of the 1977-78 edition of the *Australian Standard Commodity Classification* (ASCC) which has been expanded to include commodities originating in the agriculture, forestry, fishing and hunting, and mining industries. Publication is expected early in 1980-81;
- . preparation of the publication *Comparable Commodity Statistics of Production*,

*Imports and Exports, Australia : 1977-78*, which covers goods originating in manufacturing industries and is expected to be published early in 1980-81;

- participation in the development by the Department of Transport of the Transport Freight Commodity Classification (TFCC) for use in classifying goods carried; and
- preparation of the *Key between the 1978 and 1969 Editions of ASIC* (i.e. the Australian Standard Industrial Classification). Publication is expected early in 1980-81.

Work is proceeding on the development, jointly with the Department of Employment and Youth Affairs, of the Australian Standard Classification of Occupations (ASCO).

#### (o) Integration of economic statistics

This program provides a service to other statistical programs by co-ordinating the planning of economic census and survey operations and establishing standard concepts and definitions. The program also includes responsibility for the integrated register of businesses, which is used to implement standard concepts and definitions of units in statistical collections. The integrated register records information about business and government enterprises and their component establishments, and characteristics such as size, industry and employment, and the ownership and control links existing between these enterprises.

The standard concepts embodied in the register are subject to continuing review and development. During 1979-80 work continued on the complex task of establishing standard definitions of statistical units for the public sector and the transport industry.

Investigations to ascertain the most appropriate coverage sources and updating practices for the maintenance and progressive extension of the register were commenced.

Redesign of the integrated register system, incorporating modern computer technology, is under way.

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## 4 THE OUTPUT OF DEMOGRAPHIC, SOCIAL AND MANPOWER STATISTICS

Statistics are called for on many aspects of Australian households and the Australian people, ranging from births, deaths and marriages, through health, welfare, education, crime, employment and unemployment.

A large amount of data is collected at the quinquennial censuses of population and housing but other demographic, social and manpower statistics are derived from three major sources: by-products of administrative processes undertaken by Commonwealth and State Government departments; interviews with selected households; and surveys of businesses.

#### (a) Population census

Preparations for the next Census of Population and Housing, to be held on 30 June 1981, accelerated during 1979-80.

In order to fully inform both the Parliament and the general public about the questions to be asked in the Census, two papers were tabled in Parliament by the Treasurer in November 1979. These papers, *Topic Evaluation and Proposed Questions* and *The 1981*

*Census of Population and Housing*, provided a detailed description of census questions and a general description of procedures.

The papers represented the end product of two years work on the formulation, testing and evaluation of questions, involving a number of field tests and consultation with the general public and major users, and consideration by the Australian Statistics Advisory Council.

When tabling these documents the Treasurer also announced that the Government had decided that a substantial public awareness campaign should be conducted prior to the Census. The aims would be to make known the availability of assistance for those who might, for language or other reasons, experience difficulty in completing the form; to explain the measures taken to ensure the confidentiality of the information provided; and to explain the uses made of the statistics obtained from the Census. The Government had also decided that forms collected at the 1981 Census would be processed fully and without delay so that detailed, timely information would be available to all users as soon as possible.

Regulations specifying the topics to be included in the Census were tabled in Parliament in November 1979. Following final testing of the wording and layout of questions, printing of schedules began in April 1980.

Development of collection and processing procedures continued during the year, culminating in a 'dress rehearsal', involving 17 000 households, on 1 July 1980.

Work also proceeded on the preparation of Regulations on census procedures which will take into account relevant recommendations made by the Australian Law Reform Commission in its report *Privacy and the Census*.

Plans for disseminating the results of the Census are being drawn up and preliminary classification and tabulation proposals have been circulated to major users for comment. Production of detailed information — on computer tape, on microfiche or in printed form — is expected to commence by mid 1982.

As an indication of the extent of interest in the results of the census, during 1979-80 the Bureau handled some 32 000 individual requests for data from the 1976 Census — including many requests for special tabulations.

*A Catalogue of 1976 Census Tables*, listing all tabulations produced or planned up to the date of its release, was issued in October 1979. An updated and final version of this catalogue will be published this year, after which no further new tabulations will be produced because of the need to concentrate on preparations for the 1981 Census.

Agreements have been made with Monash and Flinders Universities for the writing of the following four monographs based on 1976 Census data:

- . *Population Mobility Within Australia's Urban Areas* (Monash);
- . *Internal Migration and the Development of the Australian Urban System, 1971-76* (Monash);
- . *Employment Opportunities and the Journey to Work in 1976* (Flinders); and
- . *An Analysis of the Social and Demographic Structure of Australian Cities* (Flinders).

### **(b) Demography**

Demographic statistics include estimates of the Australian population and its characteristics such as age, sex and marital status. Figures are published on births, deaths, marriages, divorces and overseas migration.

Publication in May 1979 of projections of the Australian population by States and Territories, on the basis of various assumptions about future fertility, mortality and migration, generated a great deal of interest. Many Commonwealth and State Government departments requested assistance in calculating the effects on the projections of varying the assumptions made.

The years 1978-79 and 1979-80 saw large increases in overseas arrivals and departures in Australia - the total number of movements for 1979-80 is estimated to exceed 4.5 million. The recording of these movements has placed a strain on statistical processing systems, necessitating the introduction of new procedures during the year to overcome delay in the publication of overseas migration statistics.

### **(c) Social**

The objective of the social program is to provide statistics relating to health, education, crime and justice, and other social matters.

A wide range of data from surveys on health topics, including more detailed statistics from the 1977-78 Australian Health Survey, was released during 1979-80. Plans were developed for a household survey of handicapped persons, and a parallel survey of handicapped persons resident in institutions, to be conducted from February to May 1981. These surveys represent the first comprehensive national study of handicapped persons to be conducted by the ABS.

Developments in education statistics included:

- a household survey on the extent to which school children move between government and non-government schools, their intentions for post-school education, and the characteristics of people who resume studies after an interval away from school or college;
- a household survey on pre-school, and child care arrangements made by parents; and
- further development, in co-operation with the bodies responsible for pre-schools, schools and post-secondary education institutions, of statistics derived from the records maintained by those bodies. The emphasis in this work has been on statistical concepts, definitions and classifications to assist both government agencies and the community at large to obtain a better understanding of the activities of the Australian education system.

The development of national crime and justice statistics continued during the year. Immediate aims are for the establishment of a series of data sets in the areas of offences reported to the police, criminal and child welfare matters brought before the courts and correctional activities. It is intended that the data from different sectors of the justice system, and from different States and Territories, will be linked by the use of standard concepts, definitions and classifications. The ABS sees its role in this field as being mainly in the formulation of such standards. The implementation of ABS recommendations would be largely in the hands of agencies directly involved in the administration of justice.

During the year, assistance in the design of a statistical system was provided to the

Australian Federal Police, the Commonwealth Legal Aid Commission, the ACT Schools Commission, and the Australian Education Council.

#### **(d) Social surveys and indicators**

The social surveys and indicators program includes the production of social statistics from surveys; development and publication of welfare statistics; and development of a framework of social and demographic statistics, including a set of social indicators.

During 1979-80 significant progress was made in the development of a framework for welfare statistics incorporating standardised definitions, classifications, and counting rules needed for a consistent data set relating to welfare. Statistical standards were developed in the areas of child abuse, adoption, and juvenile justice, as well as for persons in Australia under guardianship and children in substitute care, for whom a set of national tables for 1978-79 was compiled from figures submitted by welfare agencies.

Work has also continued, in conjunction with major users such as the Department of Social Security and State Government welfare agencies, on the development of a framework of social statistics. The ABS is aiming to design a social survey program which would enable a wider range of social statistics to be made available to users.

In response to a Government request following the release of the report of the Senate Standing Committee on Social Welfare *Evaluation in Australian Health and Welfare Services*, the ABS is preparing a discussion paper on social indicators. Thinking on this subject has been stimulated by an exchange of ideas with overseas countries through ABS participation in the OECD Social Indicators Development Programme.

The next edition of the publication *Social Indicators* is expected to be released early in 1981.

#### **(e) Manpower**

The manpower program provides statistics on the components and characteristics of the labour force, such as employment and unemployment, earnings, hours of work and other working conditions, job vacancies and labour costs.

A major source for the program is the monthly population survey, which is a household sample survey covering about two-thirds of one per cent of the population of Australia. Information is obtained from the occupants of selected dwellings by carefully selected and specially trained interviewers. The survey concentrates on the collection of data on demographic and labour force characteristics and this component is referred to as the labour force survey. The remaining part of the monthly population survey consists of supplementary collections, carried out from time to time on topics for which household interviews are a suitable method of obtaining statistics.

Supplementary survey topics in 1979-80 included persons looking for work, discouraged jobseekers, weekly earnings, multiple jobholders, persons not in the labour force, labour force experience, labour mobility, and leavers from school.

In addition to these Australia-wide surveys, special State supplementary surveys were conducted for the first time in November 1979. Details of these State surveys are included in the list of new proposals tabled in Parliament shown in Appendix 1.

A special survey conducted from September to December 1979 covered income

distribution in 1978-79, direct taxation, education experience and attitudes to further study.

Although there was no change in the amount of information collected by means of the labour force survey, the continuing demands of users resulted in the production of a greater range of estimates, including employment/population ratios, median duration of unemployment, and part-time workers classified by hours worked and whether looking for full-time work.

Statistics of gross flows into and out of the labour force and between employment and unemployment were published for the first time. These statistics, which are a valuable aid in labour market analysis, are now published monthly.

Interest in non-wage labour costs has been evident for some time and the Government has decided that the ABS should conduct a survey of employers to obtain details of such costs incurred in the twelve months commencing 1 October 1980.

Other developments during 1979-80 included:

- . introduction of a monthly survey of overtime;
- . publication, in one volume, of revised estimates of civilian employees for the period June 1966 to June 1979;
- . preparation of a new publication on unemployment, underemployment and related statistics for the period February 1978 to February 1980;
- . publication of results of new surveys of working conditions and employment benefits;
- . preparation for a household sample survey in 1980-81 to obtain information on the spread of working hours;
- . revision of the average weekly earnings series to incorporate revised estimates of civilian employees back to 1971;
- . further progress in standardising concepts and improving the coverage of industrial accident statistics;
- . adoption of the 1978 edition of ASIC for industry classification in labour force surveys;
- . assistance to the Department of Social Security in the preparation of a research paper on unemployment statistics in Australia;
- . participation in the working group which prepared Australia's position paper for the OECD High Level Conference on the Employment of Women;
- . preparation of a chapter on population growth and the economic activity of the population for an ESCAP Country Monograph; and
- . participation in and provision of statistical data to the Standing Task Group on Youth Affairs.

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## 5 OTHER ACTIVITIES

### (a) Computer re-equipment

At the time of last year's annual report, evaluation of tenders for the supply of equipment to replace the computers presently operated by the ABS was at an advanced

stage. This evaluation has since been completed and all required approvals have been obtained. All stages of the evaluation were reviewed by the independent assessor appointed by the Government. In November 1979 the Treasurer announced the Government's decision to acquire Facom M200 mainframe computers, Digital Equipment Corporation network hardware, Information Electronics visual display units, and the ADABAS data base management system. In addition, Computer Sciences of Australia were selected to develop the required network software, and a number of other suppliers were selected to provide terminal equipment and various software packages. Contracts for the supply of all hardware and software products selected have now been signed.

A timetable for delivery of hardware and software has been agreed and firm plans have been established for the development of various special purpose computing facilities, the transfer of statistical work from existing equipment, and the decommissioning of the computing equipment installed by the ABS in the early and mid 1960s.

A major retraining program has commenced under the joint management of the ABS and Facom. All computing personnel will have received training on the new facilities by the end of 1981. A separate but related training program is being developed by the Bureau for all other ABS staff using computer facilities.

Staff are being kept informed of plans for transition to the new equipment and the way in which personnel may be affected by the change-over. Committees have been set up in each office of the Bureau to investigate any personnel issues arising out of re-equipment and to make appropriate recommendations to management. All staff and staff associations have direct access to these committees.

#### **(b) Data management**

The data management project is primarily concerned with the development of a more coherent and responsive statistical service through the improved description, organisation and usage of statistical data available within the ABS. During 1979-80 the project has continued to be concerned mainly with co-ordinating preparations for the redesign, and implementation on the ABS's new computer equipment, of the many computer systems used in processing the great variety of statistical projects undertaken by the ABS. Systems redevelopment will require a great deal of highly skilled effort over the next few years.

Other activities of the data management project will focus increasingly on problems relating to description and organisation of statistical data. In the medium term this will involve, amongst other things, work towards the establishment of catalogues of information about statistical data, including descriptive information relating to the data, e.g. definitions of units, scope, coverage, and frequency of collection. It is envisaged that such catalogues eventually will be available to users of ABS statistics.

#### **(c) Statistical methodology**

As well as periodically reviewing the statistical methodology employed in its various collections, specialised units within the Bureau provide a service in field survey operations, sampling, time series analysis, and other mathematical statistical techniques. Research is undertaken into sampling theory and the conduct of sample surveys, into the use of time series methods for model building, forecasting and seasonal adjustment, and into the use of specialised statistical techniques for analytical purposes.

Specialist services are also provided on a consultative basis to other Commonwealth and State Government agencies. Examples of this type of service provided during 1979-80

are:

- assistance to the Bureau of Industry Economics in connection with a proposed collection designed to monitor domestic tourism;
- assistance to the Department of Social Security in the design and selection of a sample for use in a national survey of primary school children in connection with the International Year of the Child; and
- assistance to the South Australian Energy Council in relation to the analysis of relationships between the usage of domestic appliances and domestic energy consumption.

Appendix 2 lists professional papers prepared by ABS officers during the year.

#### (d) Dissemination of statistics

In 1979-80 the ABS published 563 monthly, quarterly, annual or irregular titles in a total of 1 758 issues, ranging from single-sheet publications to volumes such as the Year Book of Australia.

#### PUBLICATIONS ISSUED DURING 1979-80

	Number of Titles								Total	Number of issues
	Canberra	NSW	Vic.	Qld	SA	W.A	Tas.	NT		
Annual	118	44	16	58	32	43	31	—	342	342
Quarterly	39	6	6	6	5	4	4	1	71	263
Monthly	59	7	4	7	3	7	6	—	93	1 096
Other	46	1	—	2	4	4	—	—	57	57
Total	262	58	26	73	44	58	41	1	563	1 758

A complete list of ABS publications, together with a description of their contents and a subject index, is contained in the *ABS Catalogue of Publications*, copies of which are available free of charge on request from ABS offices and bookshops of the Australian Government Publishing Service (AGPS).

Apart from the statistical material in ABS publications, a large amount of more detailed, non-confidential information is disseminated in the form of computer printout, microfiche or magnetic tape.

During October-November 1979, a record was kept throughout the ABS of all requests for statistical information. Requests averaged about 4 000 per week during the recording period.

#### (e) Co-ordination

The ABS maintains contact with Commonwealth and State Government departments and authorities in order to be aware of their statistical activities, their use of existing statistical collections, and their current and future statistical needs.

The Bureau also plays a continuing and active role in developing greater co-ordination of statistical activities across Government agencies. In particular, it encourages the adoption of uniform standards and practices and fosters a co-ordinated approach to statistical development.



An important element of this work is the outposted officer service, through which ABS officers are located in other government departments and agencies. During 1979-80 new outpostings were arranged with the Department of National Development and Energy, the Australian Federal Police, and the ACT Schools Authority.

In addition, ABS officers were assigned to the Australian Financial System Inquiry, the Australian Education Council, the Victorian Department of Community Welfare Services and the Western Australian Department of Public Health. A complete list of departments and agencies to which ABS officers were outposted during 1979-80 is shown in Appendix 3.

During 1979 a preliminary survey of the collection of data by Commonwealth departments and authorities was completed. A report on this survey has been produced and distributed to all departments and authorities which participated in the survey. At the request of the Australian Statistics Advisory Council, the ABS intends to conduct this survey on an on-going basis and to publish the results.

At the request of the inter-departmental committee set up to examine the question of government paperwork imposed on small businesses by all levels of Government, the ABS conducted a survey which measured the cost incurred by small businesses in completing Government forms and documents. The results of the survey were released in a special publication *Cost to Small Businesses of Government Paperwork - Year Ended 31 December 1978*, issued in December 1979.

The ABS also has a direct and continuing participation in the work of statistical co-ordinating bodies set up by State Governments to monitor and co-ordinate statistical activities undertaken by State departments and agencies.

## 6 STAFFING AND FINANCE

### (a) Staffing

Numbers of operative staff at the end of June 1975 and the corresponding period in each of the past three financial years are shown in the following table:

NUMBER OF FULL-TIME OPERATIVE STAFF (a)

Office	June 1975	June 1978	June 1979	June 1980
Canberra	1 612	1 556	1 605	1 603
Sydney	592	510	495	505
Melbourne	485	426	418	416
Brisbane	337	319	316	318
Adelaide	257	246	242	233
Perth	235	226	226	226
Hobart	144	124	125	126
Darwin	8	16	18	18
Total	3 670	3 423	3 445	3 445

(a) Excludes staff on approved leave for periods of twelve weeks or longer.

Appendix 4 shows average monthly staff numbers in each State, by statistical program, during 1979-80. Although staff numbers at the end of June 1980 were the same as at June 1979, average monthly staff numbers were higher in 1979-80 than in 1978-79 because of work on the re-introduction of the quarterly Job Vacancy Survey and the Overtime Survey.

Appendix 5 shows the organisation of divisions and branches in the ABS at 30 June 1980.

**(b) Finance**

ABS expenditure in 1979-80 was \$64.0 million, of which \$49.0 million was on wages and salaries.

Receipts during 1979-80 totalled \$2.5 million and came mainly from charges for computer services and special compilations of overseas trade statistics, and the sale of publications.

Detailed statements of ABS expenditure and receipts for 1978-79 and 1979-80, and estimates for 1980-81, are shown in Appendix 6.

An analysis of expenditure by program over the past three years is shown in Appendix 7. The substantial increase in expenditure in the Construction and Transport programs in 1979-80 is attributable respectively to the Construction Industry Survey and the triennial Survey of Motor Vehicle Usage.

## APPENDIX 1

### NEW PROPOSALS TABLED IN PARLIAMENT : 1979-80

In accordance with section 6(3) of the *Australian Bureau of Statistics Act* 1975, the following new proposals for collection of information for statistical purposes were tabled in both Houses of Parliament during 1979-80.

<i>Date tabled</i>	<i>Project</i>
24 October 1979	Survey of tradesmen and adult vocational guidance in New South Wales (November 1979)
	Survey of housing finance in Victoria (November 1979)
	Survey of married women in the workforce in Queensland (November 1979)
	Survey of housing intentions in South Australia (November 1979)
	Survey of private bores and wells in Perth (November 1979)
	Survey of medical care in Western Australia (November 1979)
30 April 1980	Survey of retired persons and persons soon to retire (May 1980)

*Note:* These surveys were conducted as supplementary surveys in conjunction with the monthly population survey. Dates shown in brackets refer to the month in which the survey was conducted.

## APPENDIX 2

### PROFESSIONAL PAPERS BY ABS OFFICERS : 1979-80

During 1979-80 officers of the ABS prepared the following professional papers:

A. Adrian and B. Doyle: *Geographical Aspects of the 1981 Census*. Presented to the Geographical Information Systems Seminar, Department of Human Geography, Australian National University, Canberra, December 1979.

P. N. Atcherley: *Draft Report on External Transactions of the United Nations System of National Accounts - Part B: Proposed Changes*. Presented to the United Nations Expert Group on Future Directions for Work on the UN System of National Accounts, New York, USA, April 1980.

W. M. Chamberlain: *The ABS as a Research Source*. Presented to the Library Association of Australia, Government Publications Seminar, Melbourne, October 1979.

W. M. Chamberlain: *How ABS Can Help Business*. Presented to the Business Information Centre Training Program, Department of Productivity, Melbourne, February 1980.

B. Doyle: *Adjustment for Census Under-enumeration*. Presented to the Conference on the Undercount, US Bureau of the Census, Arlington, Virginia, February 1980.

B. Doyle: *The Politics of Census Taking*. Presented to the Seventh Population Census Conference, East West Population Institute, Honolulu, September 1979.

J. E. Duley: *Statistics and the Transport Industry*. Presented to the Australian Passenger Transport Conference, Canberra, February 1980.

R. W. Edwards: *Australia's Transport Statistical Collections : Future Possibilities*. Presented to the Australian Transport Information Directory Workshop, Canberra, June 1980.

W. Fleming: *Statistical Data and Publications Available from the ABS*. Presented to the Inventors Association of Victoria, Melbourne, August 1979.

E. K. Foreman, D. C. Leaver and D. J. Trewin: *Software for Sample Surveys*. Presented to the 42nd Session of the International Statistical Institute, Manila, Philippines, December 1979.

P. Gretton and P. Cotterell: *The RAS Method for Compiling Input-Output Tables - Australian Bureau of Statistics Experience*. Presented to the Eighth Conference of Economists, La Trobe University, Melbourne, August 1979.

B. E. Leonard: *The Functions and Activities of the Australian Bureau of Statistics in an Operating Environment of Restrained Growth in Public Sector Expenditure and Employment*. Presented to the Royal Institute of Public Administration (South Australian Division), Adelaide, September 1979.

N. J. Purcell: *Methods for Estimating Small Domain Employment Statistics*. Presented to the Statistical Society of Australia Symposium on 'The role of statistics in labour market planning and policy formulation', Australian National University, Canberra, February 1980.

Copies of these papers are available from the ABS on request.

## APPENDIX 3

### LOCATION OF OUTPOSTED ABS OFFICERS : 1979-80

#### Commonwealth

Department of Aboriginal Affairs  
Department of Education  
Department of Employment and Youth Affairs  
Department of Health  
Department of Immigration and Ethnic Affairs  
Department of Industry and Commerce  
Department of National Development and Energy  
Department of Social Security (a)  
Department of Trade and Resources  
Department of Transport  
ACT Schools Authority (b)  
Australian Federal Police (b)  
Bureau of Mineral Resources  
Industries Assistance Commission  
Australian Financial System Inquiry (b)  
Australian Education Council (b)

#### State

NSW — Health Commission  
Victoria — Department of Community Welfare Services (b)  
SA — Department of the Public Service Board  
WA — Department of Public Health (b)

- (a) Includes one ABS officer working on the Standardisation of Social Welfare Statistics (WELSTAT) project.
- (b) Fixed term posting.

# APPENDIX 4

## DISTRIBUTION OF FULL-TIME OPERATIVE STAFF: 1979-80

Program	Average monthly staff numbers, 1979-80							
	Canberra	NSW	Vic.	Qld	SA	WA	Tas.	NT Total
Executive	25	3	3	3	3	3	3	1 44
National accounts	53	2	1	..	..	..	..	.. 56
International accounts	61	..	..	..	..	..	..	.. 61
Prices	38	14	11	8	6	8	3	1 89
Private finance	44	2	..	1	1	..	..	.. 48
Public finance	32	12	10	9	6	5	4	.. 78
Agriculture	29	37	31	25	17	21	8	1 169
Construction	24	40	25	15	8	8	5	1 126
Transport	28	9	8	13	8	7	4	1 78
Mining	9	6	3	4	..	2	1	.. 25
Manufacturing	20	38	37	16	12	10	4	.. 137
Internal trade	21	21	17	17	11	21	13	1 122
Economic censuses system	19	12	5	2	1	1	1	.. 41
Enterprise statistics	29	7	7	5	4	2	1	1 56
Classification	23	2	..	1	1	1	..	.. 28
Economic statistics integration	21	45	36	16	12	11	2	1 144
Demography	31	13	12	10	4	5	3	2 80
Social surveys and indicators	17	..	..	..	..	..	..	.. 17
Social statistics	33	29	12	17	13	8	6	.. 118
Manpower	78	30	21	16	16	8	7	2 178
Population census	53	5	5	3	3	2	2	1 74
Foreign trade	96	..	..	..	..	..	..	.. 96
Data services and analysis	30	..	..	..	1	..	..	.. 31
Statistical services	46	..	12	4	5	3	3	.. 73
Population survey operations	27	28	23	21	16	16	6	3 140
Information services	63	18	20	16	12	10	4	1 144
Computer technical services and planning	83	..	..	..	..	..	..	.. 83
Computer applications	126	18	18	15	16	15	12	.. 220
Computer operations and software	174	60	47	41	27	31	24	.. 404
Co-ordination	35	3	3	3	4	1	..	.. 49
Data management	12	1	1	1	1	2	..	.. 18
Establishments and methods	23	3	2	..	1	1	..	.. 30
Finance and general services	130	44	39	22	23	16	9	1 284
Personnel management	71	14	14	10	7	8	3	.. 127
Total	1 604	516	423	314	239	226	128	18 3 468

Note : Excludes staff on long service leave, maternity leave, extended sick leave, etc. for periods of twelve weeks or longer. Where officers undertake duties within more than one program they have been classified to that program which occupies most of their time. The symbol .. can mean either 'less than half' or 'nil'.

Average monthly staff numbers always exceed those at 30 June because the Bureau's seasonal pattern of employment has a low point in June.

## APPENDIX 5

### ORGANISATION OF THE ABS AT 30 JUNE 1980

Australian Statistician  
R. J. Cameron

Deputy Statistician  
A. R. Bagnall

#### *Division*

Economic Accounts  
P. N. Atcherley

Demography, Social and  
Manpower  
F. D. Bagley

Economic Censuses and  
Surveys  
D. W. Anderson

Statistical and User  
Services  
E. K. Foreman

Computer Services  
B. J. Harper

Co-ordination and Management  
W. McLennan

#### *Branch*

National Accounts  
K. R. Blackburn  
Public Finance and Prices  
L. C. Clements  
International and Private Finance  
B. J. Dunlop

Demography and Social  
M. D. Giles  
Manpower  
G. I. Neville  
Population Census  
K. S. Watson

Production and Distribution  
T. R. Jones  
Rural, Transport and Construction  
R. Edwards  
Classification, Integration and  
Enterprise Statistics  
R. W. Fergie

Statistical Services  
D. C. Leaver  
User Services  
M. B. Booth  
Foreign Trade  
A. J. Whittington

Systems Development  
E. W. W. Miller  
Computer Services Planning  
D. A. Harding  
Technical Systems and Production  
B. H. Crook

Management Services  
P. G. Howell  
Co-ordination  
D. J. Trewin  
Data Management  
F. J. von Reibnitz

## APPENDIX 5

### ORGANISATION OF THE ABS AT 30 JUNE 1980 — *continued*

The offices in State capitals and in Darwin are headed by:

Sydney	J. E. Dulley
Melbourne	I. M. Cowie
Brisbane	O. M. May
Adelaide	B. E. Leonard
Perth	W. M. Bartlett
Hobart	R. Lakin
Darwin	W. H. Mitchell



# APPENDIX 6

## EXPENDITURE AND RECEIPTS: 1978-79, 1979-80 AND ESTIMATES: 1980-81 (\$'000)

	<i>Actual 1978-79</i>	<i>Actual 1979-80</i>	<i>Estimated 1980-81(a)</i>
<b>EXPENDITURE</b>			
Salaries	44 883	49 015	(b) 55 548
Overtime	326	336	435
<i>Total subdivision 1</i>	<i>45 209</i>	<i>49 351</i>	<i>(b) 55 983</i>
Travel and subsistence	722	887	1 212
Office requisites	1 637	3 035	3 200
Postage and telephones	2 613	2 883	3 274
Office services	327	310	420
Publications	1 019	1 038	1 055
Computer services	2 473	2 648	3 000
Payments to agents	2 477	2 877	3 397
Freight and cartage	113	72	554
Incidentals	329	359	940
<i>Total subdivision 2</i>	<i>11 710</i>	<i>14 109</i>	<i>17 052</i>
<i>Total division</i>	<i>56 919</i>	<i>63 461</i>	<i>(b) 73 035</i>
Special appropriation—Australian Statistician	40	47	55
—ASAC	6	7	8
<i>Total special appropriation</i>	<i>46</i>	<i>54</i>	<i>63</i>
Capital works and services—plant and equipment	199	527	(c) 11 050
<i>Total expenditure</i>	<i>57 164</i>	<i>64 041</i>	<i>(b) (c) 84 148</i>
<b>RECEIPTS</b>			
Proceeds from 'for sale' publications (d)	108	118	131
Proceeds from sale of special compilations of overseas trade statistics	133	(e) 274	186
Recovery of costs for use of ABS computers by client organisations	2 165	1 955	(f) 1 169
Miscellaneous	(g) 214	120	80
<i>Total receipts</i>	<i>2 620</i>	<i>2 467</i>	<i>1 566</i>

(a) As included in Appropriation Bills Nos. 1 and 2 except for special appropriations.

(b) Includes provision of \$4m as 1980-81 portion of expenditure on 1981 Census of Population and Housing.

(c) Includes provision of \$9.8m for purchase of new computer equipment.

(d) Excludes receipts by AGPS from sales of ABS publications.

(e) Due to changeover (from 1 July 1979) to a 'billing in advance' system, which led to two years receipts being collected in 1979-80, this figure is higher than normal.

(f) Estimated reduction of services due to the expected transfer by client organisations to their own equipment.

(g) Includes NSW Government contribution of \$50 000 to the Housing Survey in Sydney, Wollongong and Newcastle.

Note: Any differences between totals and sums of components are due to rounding.

# APPENDIX 7

## DISTRIBUTION OF EXPENDITURE BY PROGRAM: 1977-78 TO 1979-80

The following table shows total ABS expenditure for the years 1977-78 to 1979-80 allocated to statistical and service programs. The allocation of certain components of expenditure, e.g. salaries, is reasonably accurate but others, e.g. postage and telephones, are distributed on a pro rata basis. The table also shows an estimate of the cost of individual statistical programs, after allocating costs of service programs according to estimates of their use by individual statistical programs.

Program	1977-78			1978-79			1979-80		
	Estimated direct expenditure		Estimated total expenditure (a)	Estimated direct expenditure		Estimated total expenditure (a)	Estimated direct expenditure		Estimated total expenditure (a)
	\$'000	\$'000	%	\$'000	\$'000	%	\$'000	\$'000	%
Executive	1 119	—	—	1 232	—	—	1 331	—	—
National accounts	785	1 512	3.0	984	1 874	3.5	1 090	1 962	3.3
International accounts	1 113	1 693	3.4	1 023	1 533	2.8	1 025	1 598	2.7
Prices	1 245	1 733	3.5	1 366	1 918	3.6	1 478	2 015	3.4
Private finance	777	1 220	2.4	744	1 143	2.1	763	1 122	1.9
Public finance	1 184	2 928	5.9	1 224	2 311	4.3	1 334	2 741	4.6
Agriculture	2 539	4 449	8.9	2 604	5 126	9.5	2 445	4 627	7.7
Construction	1 476	2 850	5.7	1 534	3 244	6.0	1 993	5 035	8.4
Transport	718	1 215	2.4	702	1 484	2.7	1 246	2 914	4.9
Mining	417	967	1.9	392	911	1.7	414	1 018	1.7
Manufacturing	2 095	4 596	9.2	2 129	4 677	8.7	2 194	4 564	7.6
Internal trade	1 579	3 702	7.4	1 788	4 194	7.8	1 856	4 635	7.8
Economic censuses system	371	—	—	514	—	—	561	—	—
Enterprise statistics	656	2 211	4.4	699	2 622	4.9	878	2 792	4.7
Classification	465	—	—	534	—	—	557	—	—
Economic statistics integration	1 847	—	—	2 278	—	—	2 310	—	—
Demography	976	2 408	4.8	1 083	2 368	4.4	1 218	2 656	4.4
Social surveys and indicators	403	1 462	2.9	274	1 164	2.2	316	1 187	2.0
Social statistics	1 562	2 355	4.7	1 749	4 062	7.5	1 845	4 121	6.9
Manpower	2 251	7 855	15.7	2 277	9 394	17.4	2 676	10 579	17.7
Population census (see below) (b)									
Foreign trade	1 498	3 321	6.7	1 544	3 143	5.8	1 497	3 343	5.6
Data services and analysis	649	705	1.4	612	655	1.2	551	422	0.7
Statistical services	979	—	—	1 196	—	—	1 302	—	—
Population survey operations	4 056	—	—	5 039	—	—	5 758	—	—
Information services	2 917	—	—	(c) 2 686	—	—	3 005	—	—

**DISTRIBUTION OF EXPENDITURE BY PROGRAM: 1977-78 TO 1979-80**  
(continued)

Program	1977-78			1978-79			1979-80		
	Estimated direct expenditure	Estimated total expenditure (a)		Estimated direct expenditure	Estimated total expenditure (a)		Estimated direct expenditure	Estimated total expenditure (a)	
	\$'000	\$'000	%	\$'000	\$'000	%	\$'000	\$'000	%
Computer technical services and planning (d)	n.a.	—	—	n.a.	—	—	1 411	—	—
Computer applications (d)	n.a.	—	—	n.a.	—	—	3 702	—	—
Computer operations and software (d)	n.a.	—	—	n.a.	—	—	8 787	—	—
<i>Total computer services</i>	11 972	—	—	12 647	—	—	13 899	—	—
Co-ordination	893	—	—	927	—	—	988	—	—
Data management	285	—	—	312	—	—	390	—	—
Establishments and methods	491	—	—	486	—	—	548	—	—
Finance and general services	3 095	—	—	3 348	—	—	3 836	—	—
Personnel management	1 686	—	—	1 890	—	—	2 014	—	—
Non-ABS (e)	—	2 693	5.4	—	2 194	4.1	—	2 423	4.1
<i>Total excluding population census</i>	52 099	49 875	100.0	55 815	54 017	100.0	61 318	59 754	100.0
Population census	6 137	8 361	—	1 349	3 146	—	2 723	4 288	—
<i>Total including population census</i>	58 236	58 236	—	57 164	57 164	—	64 041	64 041	—

(a) Statistical programs only: includes estimated costs of service programs allocated in proportion to usage on statistical programs.

(b) Excluded from analysis because of large annual variations during the quinquennial cycle.

(c) Reduced expenditure, compared with 1977-78, reflects cost savings achieved through production of some major publications under contract.

(d) 1979-80 expenditure based on revised program structure: program comparisons for earlier years not available.

(e) General services to other government departments and agencies of which the major component is the use of ABS computer services.

Note: Any differences between totals and sums of components are due to rounding.

n.a.—not available

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